

What is claimed is:

1. An organic electroluminescence display panel comprising a plurality of organic electroluminescence elements, each of the elements comprising first and second display electrodes and at least one of organic function layers including an emission layer comprising an organic compound, the function layers being sandwiched and stacked between the first and second display electrodes, and a substrate supporting the plurality of organic electroluminescence elements; wherein the organic function layers include at least one common layer that is formed commonly for the plurality of organic electroluminescence elements and has charge transport properties, and the common layer has a gap filling part extending among the plurality of organic electroluminescence elements.

2. The organic electroluminescence display panel according to claim 1, wherein sheet resistance ρs_{ctl_min} of the gap filling part is a value satisfying the following formula,

$$\rho s_{ctl_min} \geq (V_{on} - V_{off}) / (j \cdot l \cdot a)$$

where ρs_{ctl_min} indicates the minimum of sheet resistance ρs_{ctl} , V_{on} indicates voltage between the first and second display electrodes of the organic electroluminescence element without electric leakage in an on-state, V_{off} indicates voltage between the first and second display electrodes of the organic electroluminescence element that is adjoining in an off-

state, j indicates a luminance difference coefficient of 0.08 or less, I indicates driving current, and a indicates a coefficient obtained from a shape of the gap filling part, respectively.

3. The organic electroluminescence display panel according to claim 1, wherein the sheet resistance ρs_{ctl_min} of the gap filling part is a value satisfying a formula,

$$\rho s_{ctl_min} \geq (V_{on}(K-1) - V_{off}) \cdot (K-1) / (I_{const} \cdot a)$$

where ρs_{ctl_min} indicates the minimum of the sheet resistance ρs_{ctl} , K indicates a gray-scale number for display, $V_{on}(m)$ indicates voltage between the first and second display electrodes of the organic electroluminescence element without the electric leakage at a gray-scale m (m is an integer of 1 or more) in the on-state, V_{off} indicates the voltage between the first and second display electrodes of the organic electroluminescence element that is adjoining in the off-state, I_{const} indicates driving current having a constant value, and a indicates the coefficient obtained from the shape of the gap filling part, respectively.

4. The organic electroluminescence display panel according to claim 1, wherein the sheet resistance ρs_{ctl_min} of the gap filling part is a value satisfying a formula,

$$\rho s_{ctl_min} \geq (V_{on}(K-1) - V_{off}) \cdot (K-1) / (a \cdot I(K-1))$$

where ρs_ctl_min indicates the minimum of the sheet resistance ρs_ctl , K indicates the gray-scale number for display, $V_{on}(n)$ indicates voltage between the first and second display electrodes of the organic electroluminescence element without the electric leakage at a gray-scale n (n is an integer of 1 or more) in the on-state, V_{off} indicates the voltage between the first and second display electrodes of the organic electroluminescence element that is adjoining in the off-state, $I(m)$ indicates electric current flowing into the organic electroluminescence element at the gray-scale m , and a indicates the coefficient obtained from the shape of the gap filling part, respectively.

5. The organic electroluminescence display panel according to claim 1, wherein sheet resistance ρs_ctl10 of the gap filling part is a value satisfying a formula,

$$\rho s_ctl10 \geq 10 \cdot (V_{const} - V_{off}) / (I(m) \cdot a)$$

where ρs_ctl10 indicates the minimum of the sheet resistance ρs_ctl , V_{const} indicates constant driving voltage, V_{off} indicates the voltage between the first and second display electrodes of the organic electroluminescence element that is adjoining in the off-state, $I(m)$ indicates the electric current flowing into the organic electroluminescence element at the gray-scale m (m is an integer of 1 or more), and a indicates the coefficient obtained from the shape of the gap filling part, respectively.

6. The organic electroluminescence display panel according to claim 1, wherein the sheet resistance ρs_{ctl10} of the gap filling part is a value satisfying a formula,

$$\rho s_{ctl10} \geq 10 \cdot (V_{on}(1) - V_{off}) / (I(1) \cdot a)$$

where ρs_{ctl10} indicates the minimum of the sheet resistance ρs_{ctl} , $V(m)$ indicates driving voltage of the organic electroluminescence element at the gray-scale m , V_{off} indicates the voltage between the first and second display electrodes of the organic electroluminescence element that is adjoining in the off-state, $I(m)$ indicates the electric current flowing into the organic electroluminescence element at the gray-scale m (m is the integer of 1 or more), and a indicates the coefficient obtained from the shape of the gap filling part, respectively.